

TREATMENT PROTOCOL: SYMPTOMATIC BRADYCARDIA (ADULT)

1. Basic airway
2. Pulse oximetry
3. Oxygen prn
4. Cardiac monitor: document rhythm and attach ECG strip if dysrhythmia identified
Bradycardia in acute MI may reflect a protective cardiac mechanism
Perform a 12-lead ECG
5. Venous access
6. Supine position prn
7. Advanced airway prn
8. Continuous monitoring en route, assess for signs of poor perfusion
9. Poor perfusion (If the child is off the Broselow™ and adult size, move to the Adult protocol and Adult dosing)
Atropine
0.5mg IV push
10. If hyperkalemia suspected, **Albuterol** 5mg via continuous mask nebulization two times. ❶
11. If no improvement:
Transcutaneous pacing (TCP) if available
Immediate TCP for patients with heart rate equal to or less than 40bpm and SBP equal to or less than 80mmHg in 2nd degree (Type II) heart block or 3rd degree heart block
Do not delay TCP for venous access
Recommended setting initial rate at 70bpm/0mA, slowly increase mA's until capture is achieved
12. **ESTABLISH BASE CONTACT (ALL)**
13. If hyperkalemia suspected, **Calcium Chloride** 1gram slow IV push over 60 seconds
May repeat one time. ❶ ❷
14. Consider fluid challenge
Normal Saline
10ml/kg IV at 250ml increments
Use caution with rates
15. If TCP is not available consider:
Dopamine (Adult Administration Only) ❸
400mg/500ml NS IVPB
Start at 30mcgts/min titrate to SBP 90-100mmHg and signs of adequate perfusion or to a maximum of 120mcgts/min
16. If TCP is utilized in the awake patient, consider sedation or analgesia
Midazolam ❹
1-2mg slow IV push titrate for sedation
2.5mg IM or IN if unable to obtain venous access
May repeat every 5min, maximum total adult dose 10mg all routes
Morphine ❹ ❺ **OR** **Fentanyl** ❹ ❺
2-12mg slow IV push for analgesia 50-100mcg slow IVP for analgesia
Maximum total adult dose 20mg May repeat every 5min, maximum adult dose 200mcg
17. If patient continues to have symptomatic bradycardia or TCP is not available:
Atropine ❹
0.5mg IV push
May repeat every 3-5min, maximum total adult dose 3mg

SPECIAL CONSIDERATIONS

- ❶ Patients at risk for hyperkalemia are those with renal failure, missed dialysis or patients taking potassium sparing diuretics. EKG signs of hyperkalemia include peaked T-waves, wide QRS, bradycardia, long PR interval, and absent p-waves.
 - ❷ In consultation with the base hospital, consider sodium bicarbonate 50mEq slow IVP for suspected hyperkalemia.
 - ❸ Ondansetron may be administered prior to morphine administration reduce potential for nausea/vomiting.
 - ❹ If the child is off the Broselow™ and adult size, move to the Adult protocol and Adult dosing.
 - ❺ If available.
 - ❻ Absolute contraindications: Altered LOC, respiratory rate less than 12 breaths/min, hypersensitivity or allergy
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